Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Currently amended): [[A]] An assembly of a plurality of catalyst ~~structure~~ structures for use in manufacturing [[a]] carbon ~~nanotube~~ nanotubes of crystalline carbon by means of vapor deposition, wherein

the catalyst structure is shaped as a pipe with its even upper surface serving as a crystal growth surface,

the catalyst structure includes a catalytic material that forms a ring corresponding to a carbon nanotube on the crystal growth surface, and

at least part of a side of said structure shaped as a pipe has a non-catalytic material with substantially no catalytic activity with respect to a growth of said crystalline carbon.

2 (Cancelled)

3 (Currently amended): The assembly of a plurality of catalyst ~~structure~~ structures according to claim 1, wherein said non-catalytic material is made of one or more selected from the group consisting of Ag, Au, Ru, Rh, Pd, Os, Ir and Pt.

4 (Currently amended): The assembly of a plurality of catalyst ~~structure~~ structures according to claim 1, wherein said catalytic material is made of one or more selected from the

group consisting of Fe, Co, Mo and Ni, and said non-catalytic material is made of Ag and/or an Ag containing alloy.

5 (Currently amended): The assembly of a plurality of catalyst ~~structure~~ structures according to claim 1, wherein said crystal growth surface has a multilayer structure with catalytic and non-catalytic material.

6 (Currently amended): The assembly of a plurality of catalyst ~~structure~~ structures according to claim 1, wherein at least said crystal growth surface of said catalytic material is oxidized.

7 (Canceled)

8 (Withdrawn): A method of manufacturing a carbon nanotube, the method using a catalyst structure having a catalytic material that forms a ring or a whirl on a crystal growth surface, said crystal growth surface being contactable with a feedstock gas for vapor deposition of crystalline carbon on said crystal growth surface.

9 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein said carbon nanotube is produced at a temperature not higher than a deformation temperature of said non-catalytic material.

10 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein, in an assembly of a plurality of catalyst structures, a throughhole is provided between said catalyst structures within said assembly.

11 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein said feedstock gas is flown in a direction perpendicular to said crystal growth surface.

12 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein a columnar assembly is formed by a plurality of catalyst structures, and a non-catalytic material is provided in contact with at least part of a side of said assembly with its upper surface serving as a crystal growth surface, and the variation in a cross section of catalytic material measured on the crystal growth surface among said plurality of said catalyst structures is not more than CV 10%.

13 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein said crystal growth surface undergoes a sputtering.

14 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 13, wherein said sputtering is performed using cluster ion beam or ultrashort pulse laser.

15 (Withdrawn): The method of manufacturing a carbon nanotube according to claim 8, wherein said catalytic material undergoes a reactivation employing one or more of chemical polishing, physical polishing and sputtering.